



ROADS, PARKS AND FLEET MEMORANDUM

TO: MAYOR J. LEHMAN, AND MEMBERS OF COUNCIL

FROM: D. FRIARY, DIRECTOR OF ROADS, PARKS AND FLEET

NOTED: A. BOURRIE, RPP, ACTING GENERAL MANAGER OF INFRASTRUCTURE AND GROWTH MANAGEMENT

M. PROWSE, CHIEF ADMINISTRATIVE OFFICER

RE: DURABLE PAVEMENT MARKING PILOT PROJECT

DATE: NOVEMBER 19, 2018

The purpose of this Memorandum is to provide members of Council with information regarding the success and extension of the 2017 durable pavement marking pilot project.

The City's current pavement marking program includes the painting of all roadways with water borne traffic paint in the spring, with all of the major roadways being repainted in the fall. However, there are certain roadways throughout the City which have high traffic volumes and significant weaving movements which impacts the life span of the pavement markings. The longevity of the pavement markings are dependent on the roadway volume and number of vehicles weaving between the lanes all of which causing the abrasion of the pavement markings. During the winter months the added sand/salt used for winter maintenance further reduces the lifespan.

In the fall of 2017, staff implemented a pilot project for durable pavement markings. Durable pavement markings are a two part plastic compound which hardens as it cures and allows for a longer life cycle over traditional water borne traffic paint. This pilot was implemented along the westbound lanes of Mapleview Drive between Bayview Drive and Highway 400 Northbound On-Ramp. This area was selected for its high traffic volume, approximately 50,000 vehicles per day, and high weaving patterns which causes excessive wear on traditional pavement markings. This project was determined to be a success, as the durable pavement markings were still very visible in the spring of 2018. Typically the pavement markings on this roadway segment have limited visibility in the spring

As a result of the success of the pilot project, staff have extended the pilot project this year to include eastbound lanes on Mapleview Drive between Highway 400 Northbound On-Ramp and Bayview Drive.

The City has implemented durable pavement markings with various capital roadway resurfacing projects and in conjunction with the Ministry of Transportation. Currently, durable pavement markings have been implemented along Bayfield Street between Cundles Road and Coulter Street as part of the reconstruction, as well as along Duckworth Street with the Highway 400 improvements.

The City is also reviewing additional locations throughout the City for durable pavement markings. These include Essa Road between Fairview Road and Ardagh Road, and Fairview Road between Essa Road and Little Avenue. Both roadways were selected as a result of the heavy traffic volumes, and weaving patterns due to commuter traffic accessing Highway 400. Please refer to Appendix "A".

The City has been using durable pavement markings in other applications throughout the City for many years, in both capital projects and general maintenance. These applications include stop bars, directional arrows, bicycle symbols, and cross walks. This is an industry best practise as these locations have higher wear over standard lane lines, as there is constant turning and tire tracking but at a much higher cost to install. The implementation of durable pavement markings in these applications is also a cost effective measure, as these applications are more abrasion resistant thereby having a longer application life over water borne traffic paint.

The City uses other measures to enhance pavement markings, such measures include “cat eyes” which are reflectors embedded into the asphalt. Cat eyes can be used along the centre line, lane lines, and edge lines. These measures are a way to help highlight changes in geometric alignment of roadways during night time to improve the operation and safety of the roadway.

The City has used “cat eyes” along Ferndale Drive South between Tiffin Street and Summerset Drive, and Donald Street between Wellington Street and Anne Street. Staff have received positive feedback regarding these applications, and as a result staff are investigating the potential use of “cat eyes” along Marsellus Drive between Timothy Lane and Downing Crescent, and Lockhart Road between Huronia Road and Finbury Street. Please refer to Appendix “B”.

City staff continually investigates and implement various forms of pavement marking materials, and enhancements in order to improve the operation and safety of City roadways.

Barrie

Pilot Project For Durable Pavement Markings

LEGEND:

- Existing Durable Pavement Markings
- Proposed Durable Pavement Markings
- X Possible Future Locations

DATE: Oct 2018
SCALE: NTS

Map Labels: ESSA, LAWRENCE RD., CUNDLES BLVD., DEBRA LIBRA RD., JANE CRES., FAIRVIEW ROAD, LITTLE CRESCENT STREET, PEACOCK STREET, HALL LANE, MARSH HALL LANE, WILDERBRAND ST CRT, HEATH STREET, WEST STREET, GLENWOOD DRIVE, ARGYLE RD, COULTER STREET, FERRIS BAKER CRES, PATRICIA AVENUE, REDBELL ST, CHARL BROOK, MAPLEVIEW, CONCERT WAY, LIVE P, BAYVIEW.

